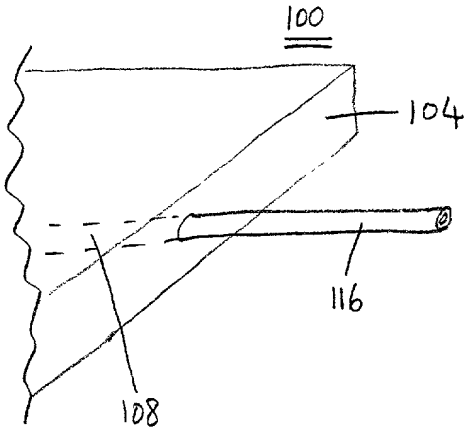


Fig 1A

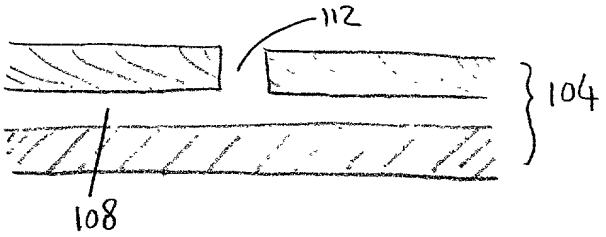


Fig 1B

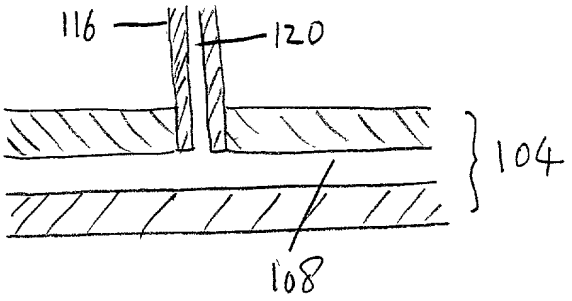


Fig 1C

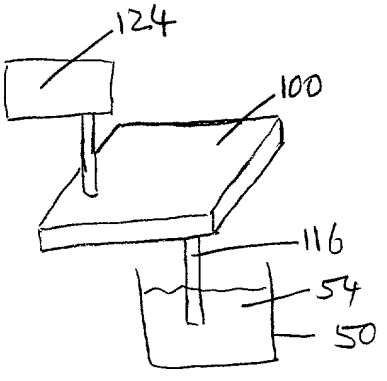


Fig 2A

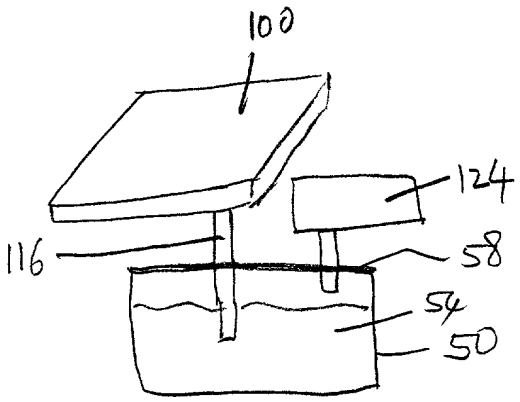


Fig 2B

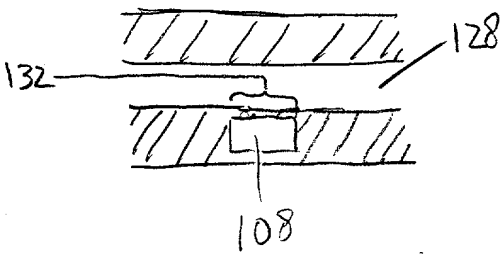


Fig 3A

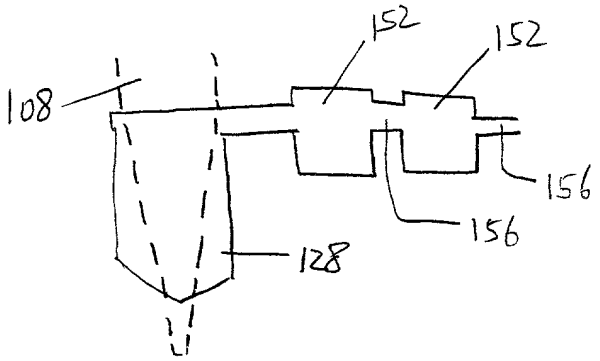


Fig 3B

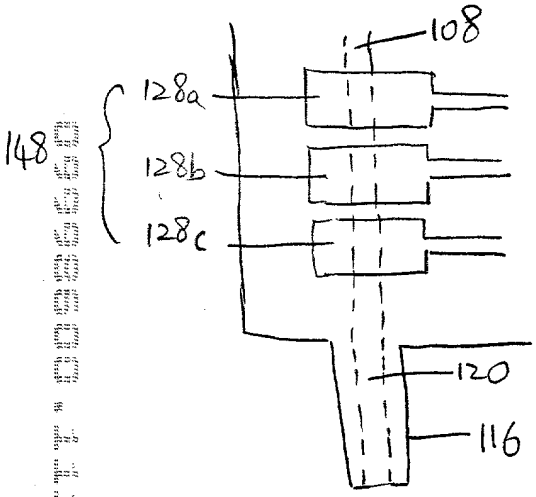


Fig 3C

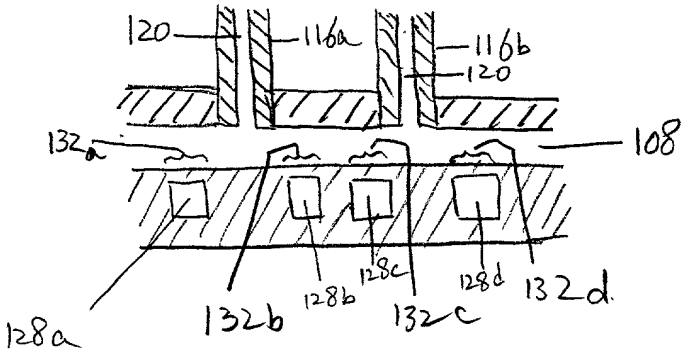


Fig 3D

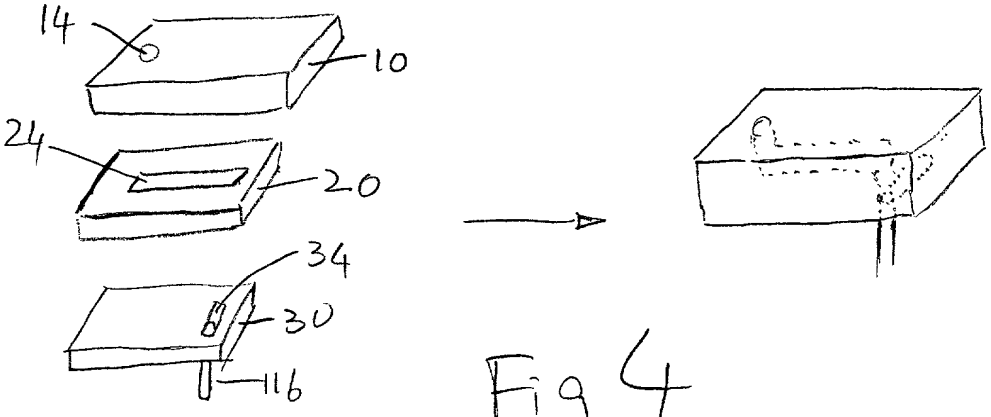


Fig 4

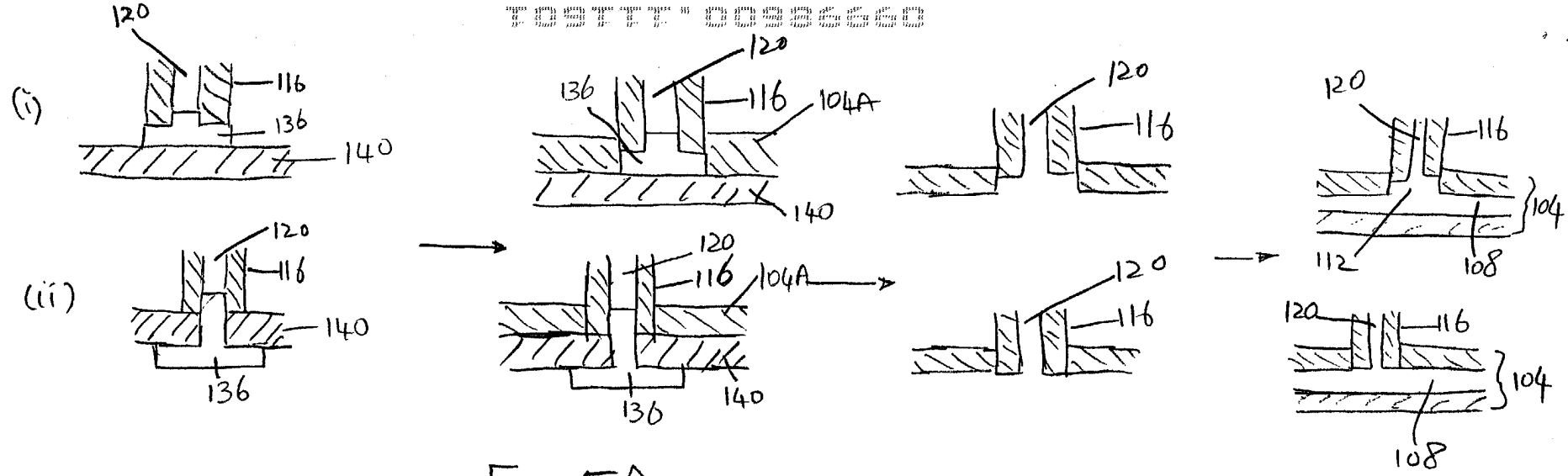

(i)
(ii)
120
116
136
140
104A
104
112
108

Fig 5A

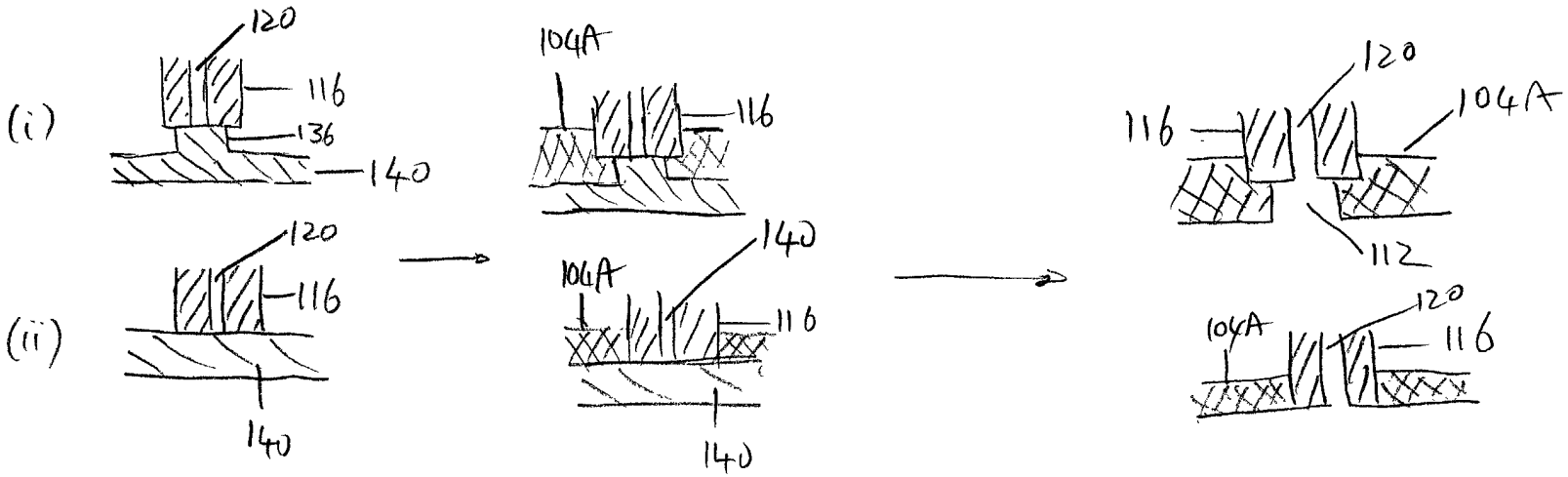

(i)
(ii)
120
116
136
140
104A
112

Fig 5B

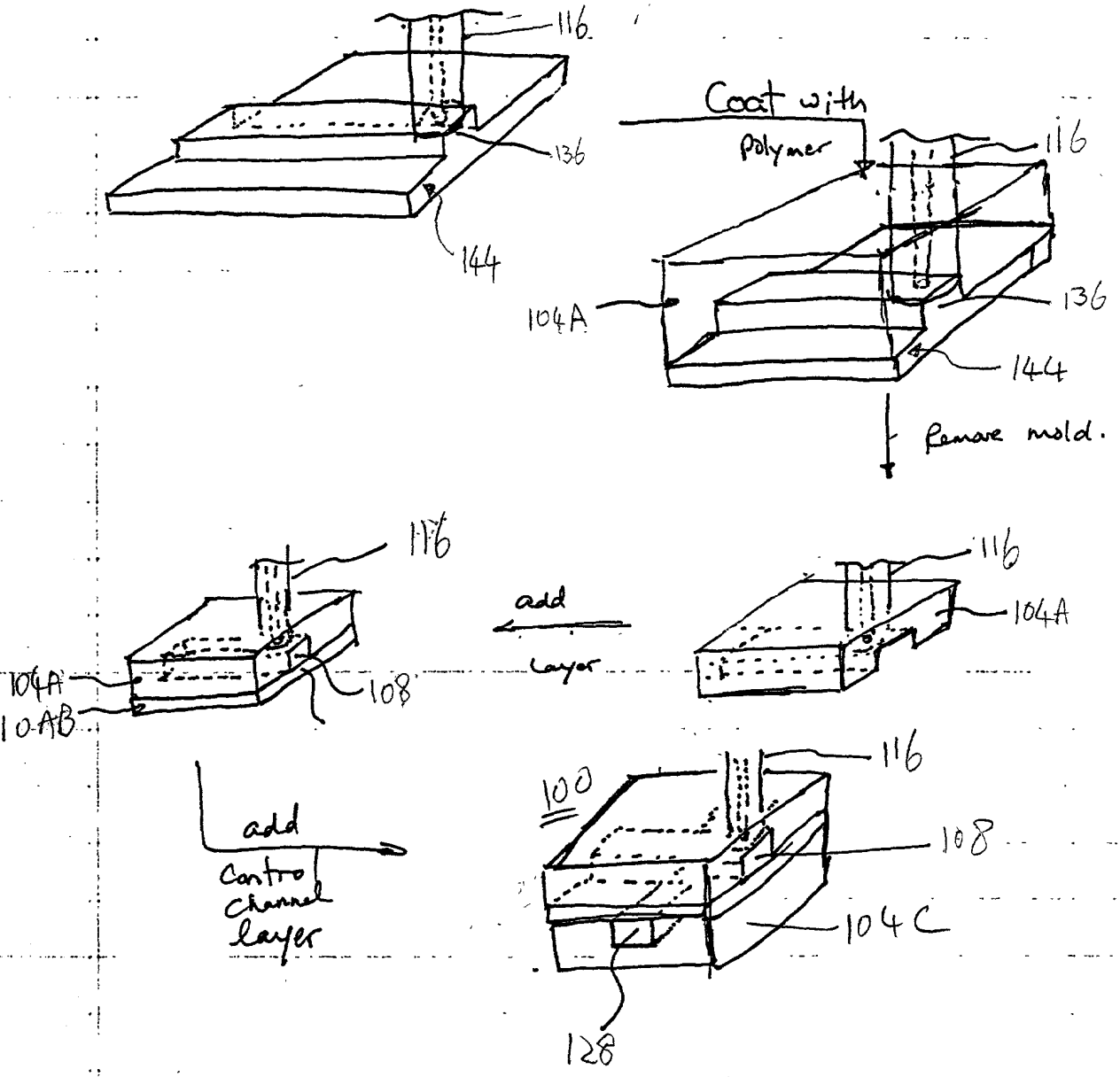

116
136
144
Coat with
Polymer
116
104A
136
144
Remove mold.
116
104A
108
104AB
add
layer
116
104A
add
Contro
channel
layer
116
100
108
104C
128

Figure 5C

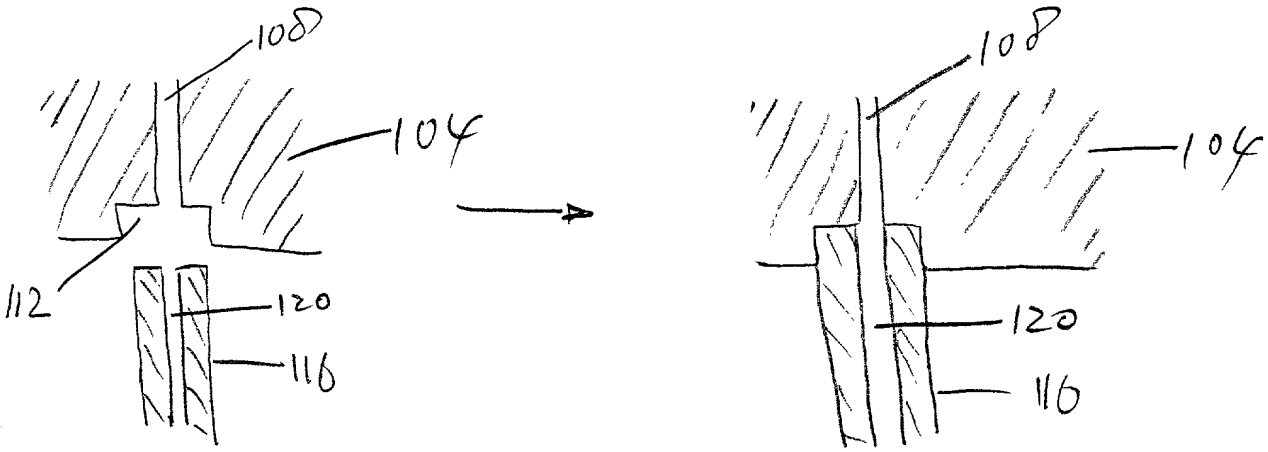
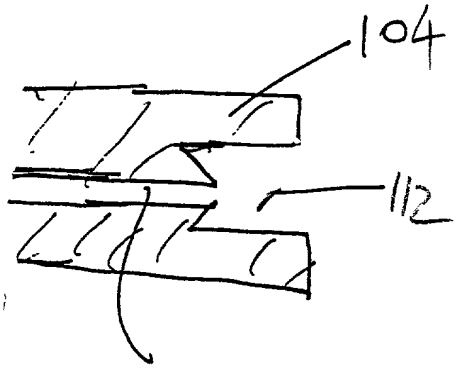


Fig 6A



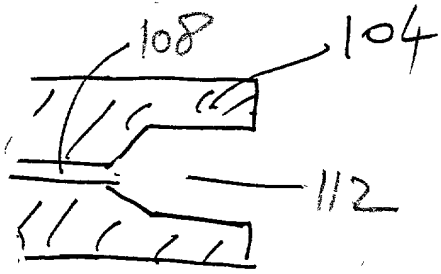
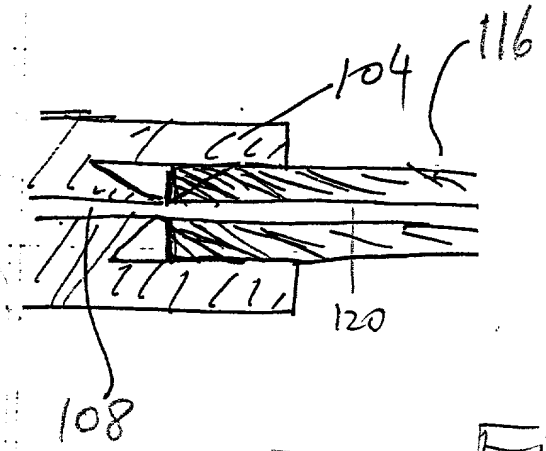


Fig 6B



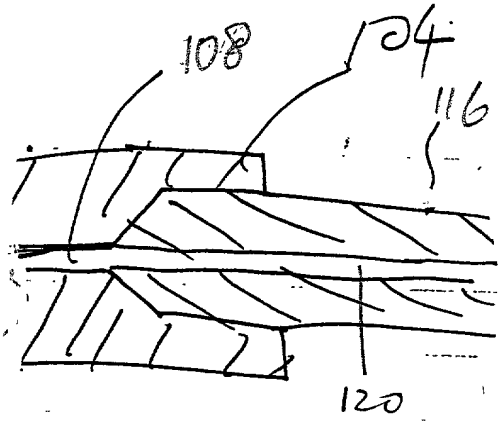


Fig 6C

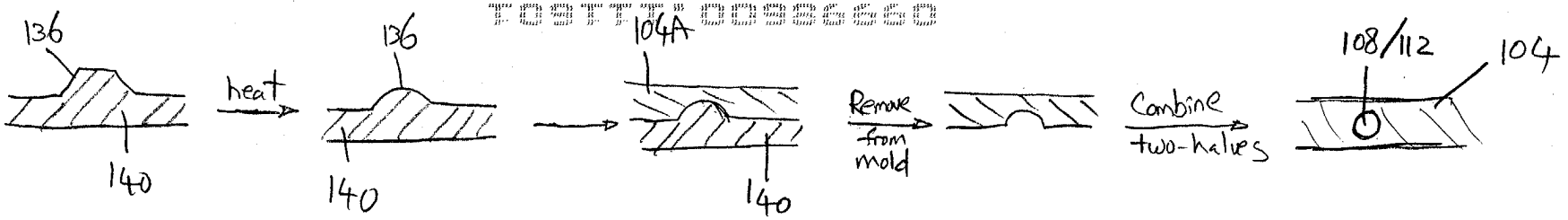


Fig 7

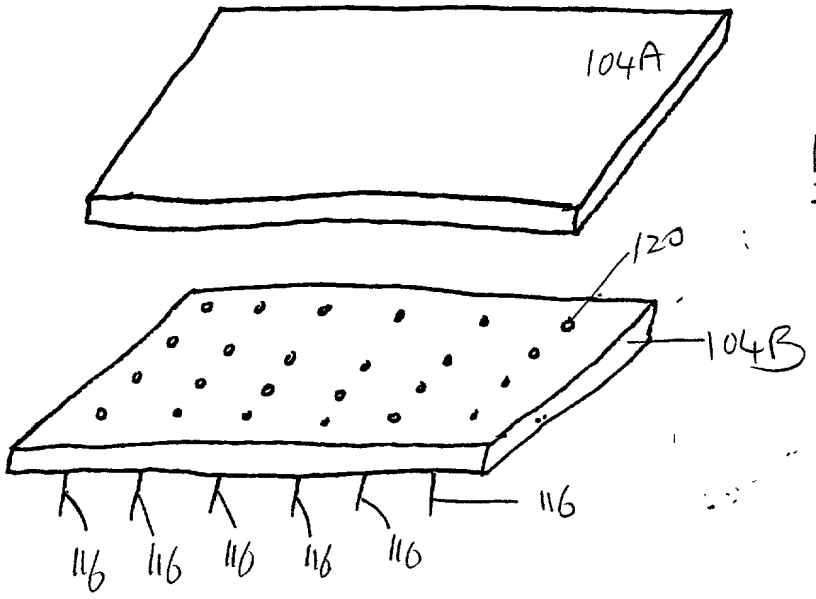


Fig 8A

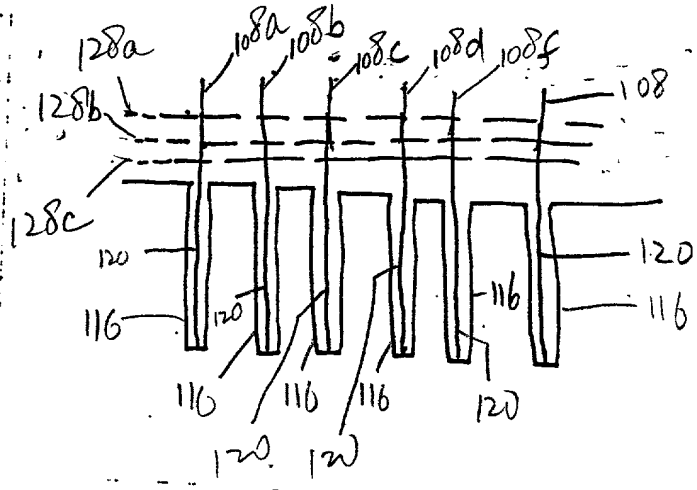


Fig 8B

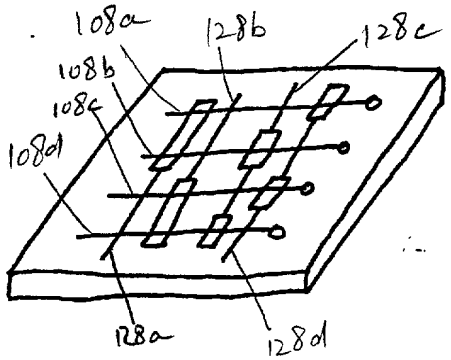


Fig 9

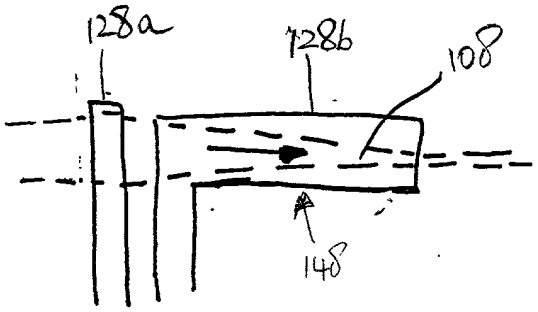


Fig 10A

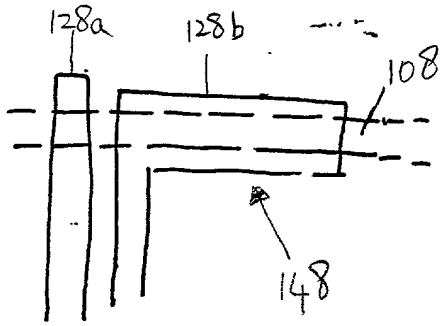


Fig 10B

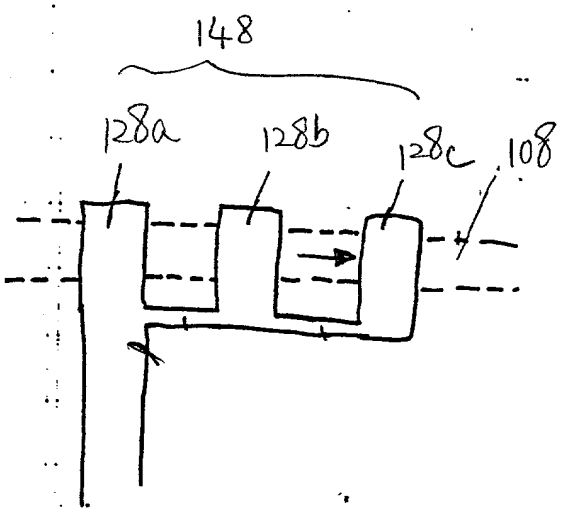


Fig 10C

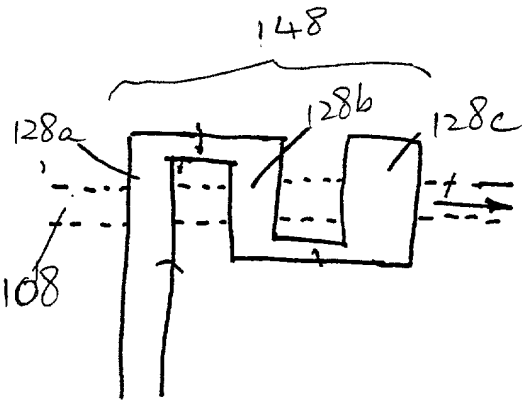


Fig 10D

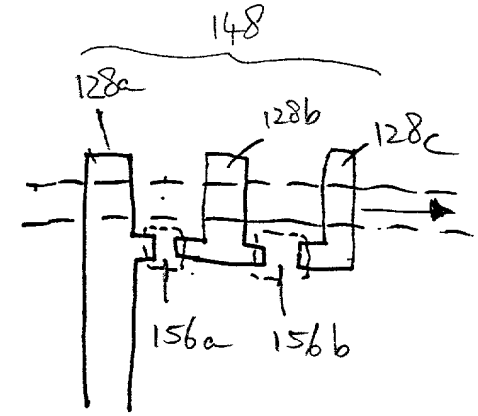


Fig 10E

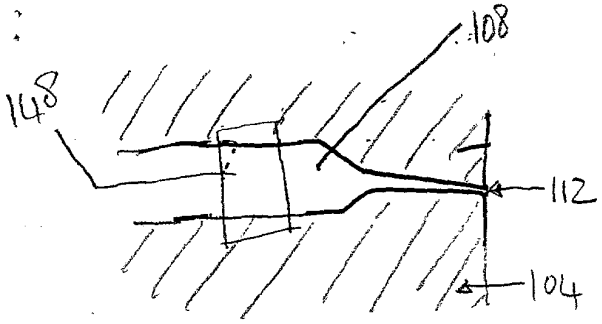


Fig 11B

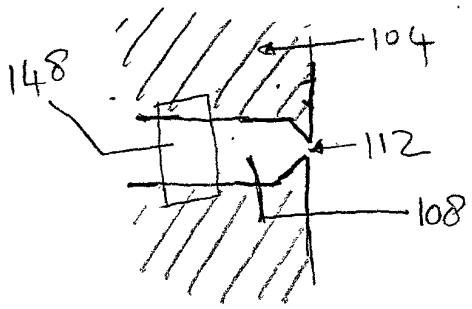


Fig 11C

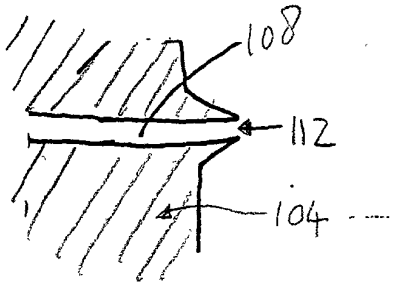


Fig 11A

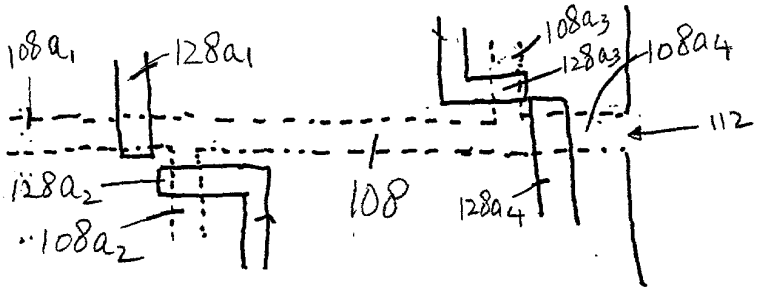


Fig 12A

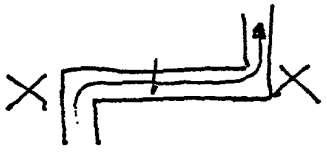


Fig 12B

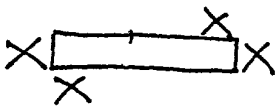


Fig 12C

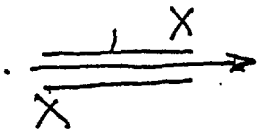
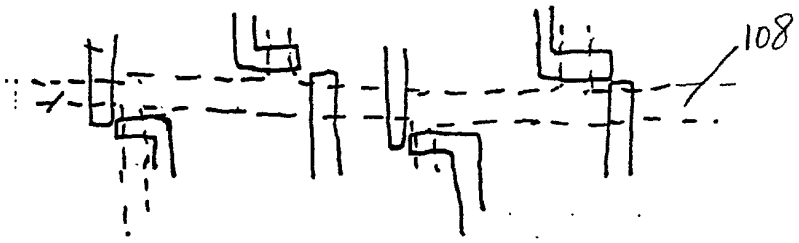


Fig 12D



12E

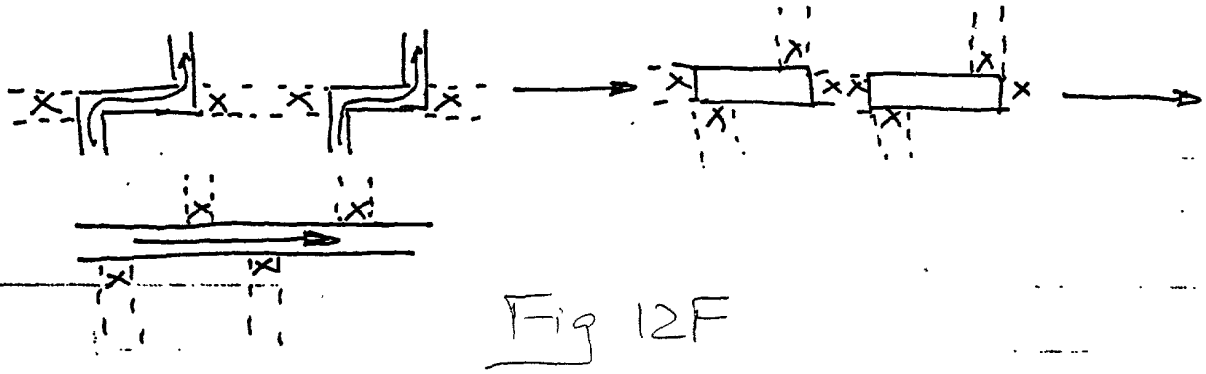


Fig 12F

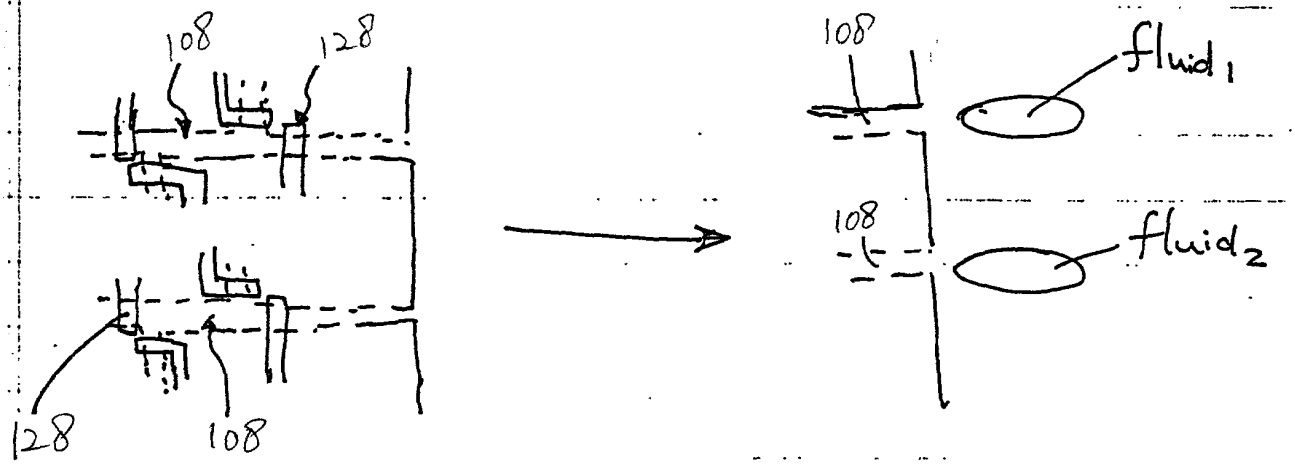


Fig 12G

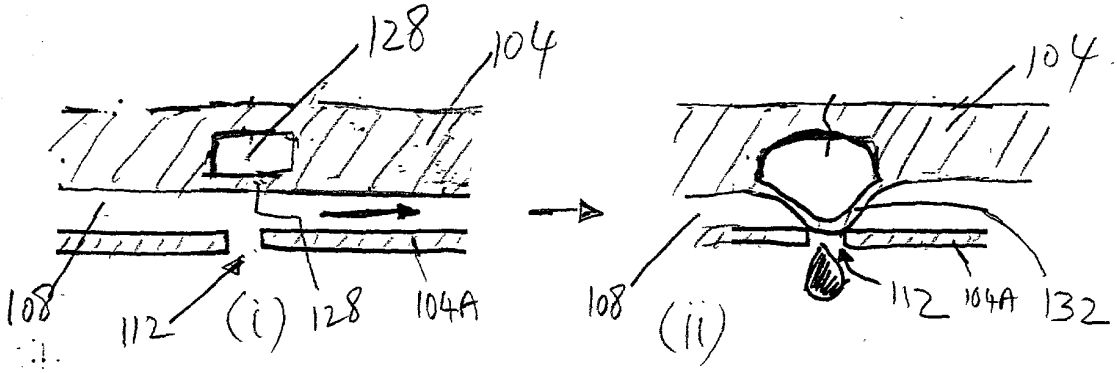


Fig 13A

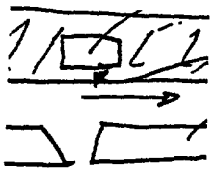


Fig 13B

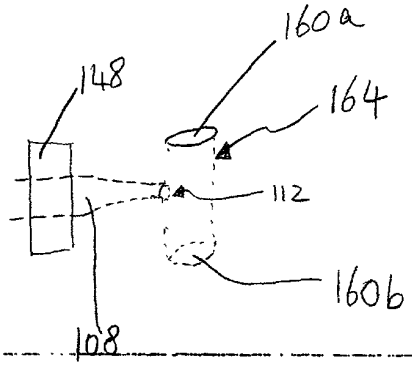


Fig 15A

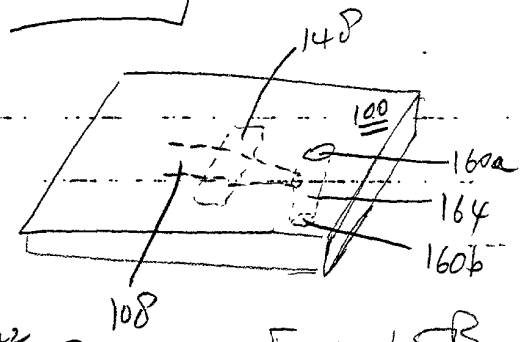


Fig 15B

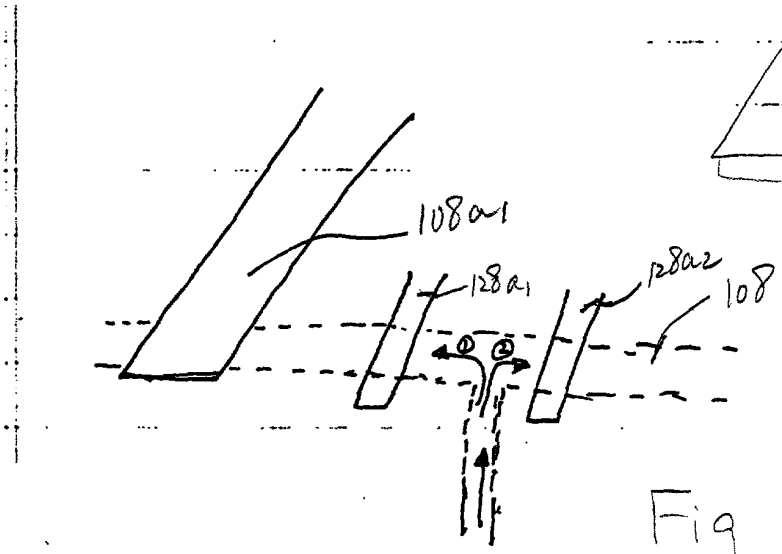


Fig 14A

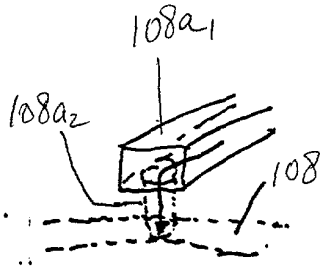


Fig 14B

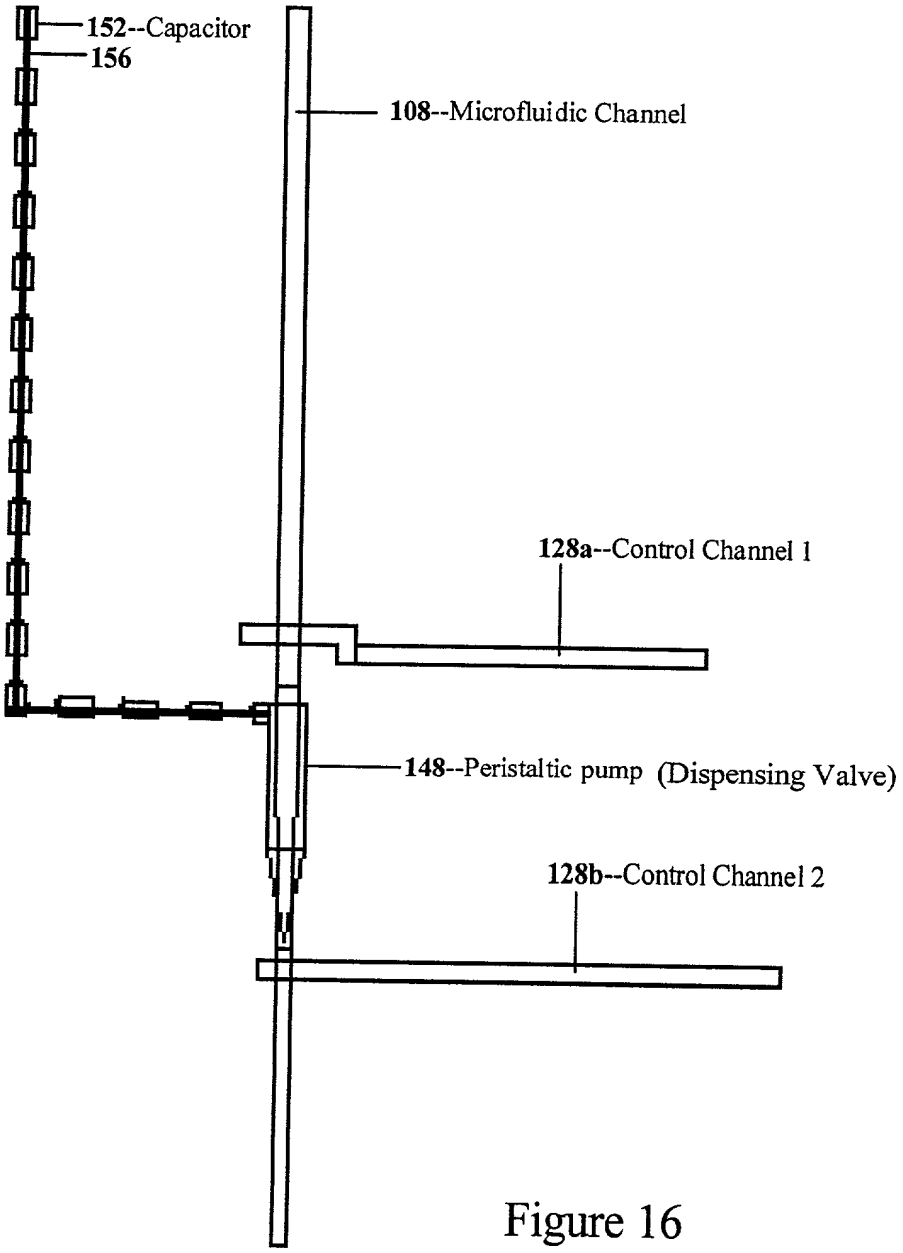

152--Capacitor
156
108--Microfluidic Channel
128a--Control Channel 1
148--Peristaltic pump (Dispensing Valve)
128b--Control Channel 2

Figure 16

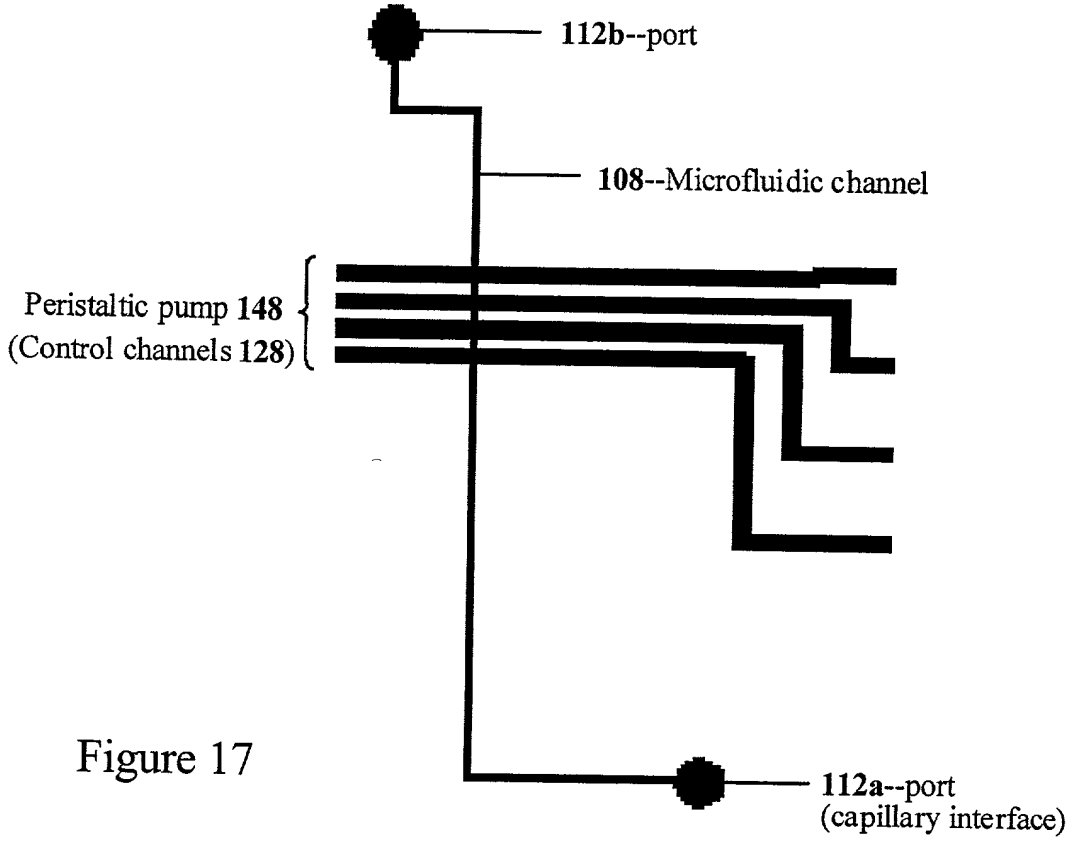


Figure 17

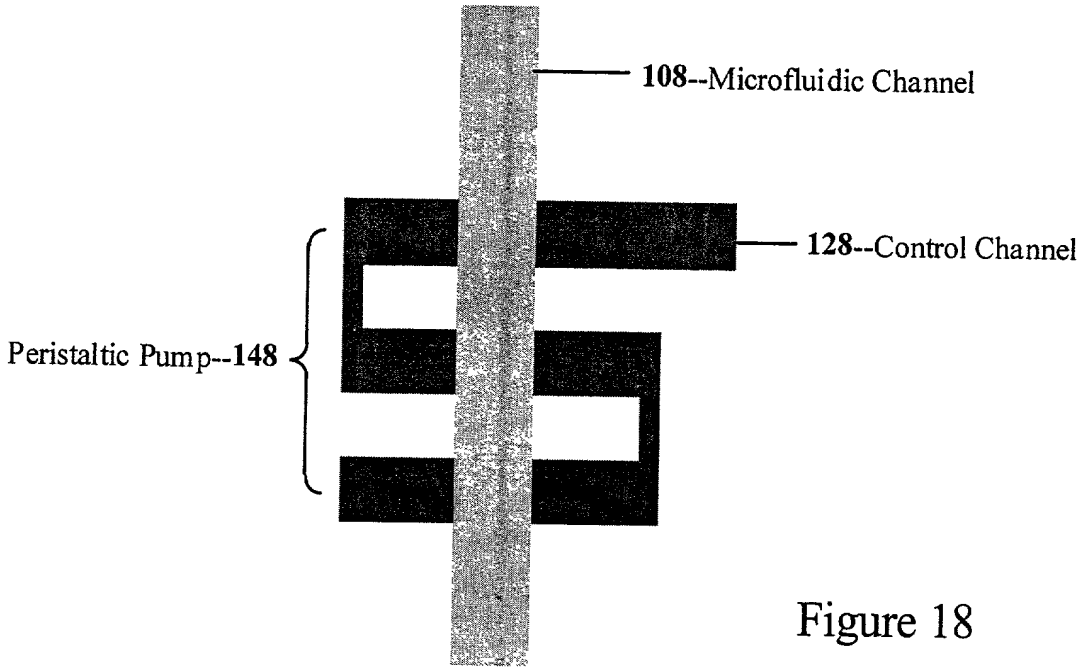


Figure 18

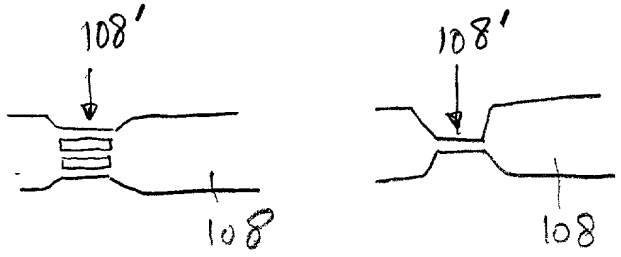


Fig 19

FIG. 20A

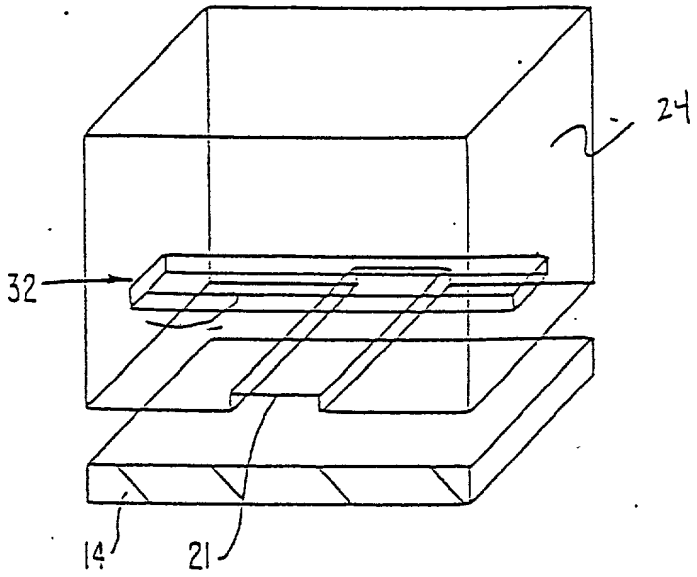
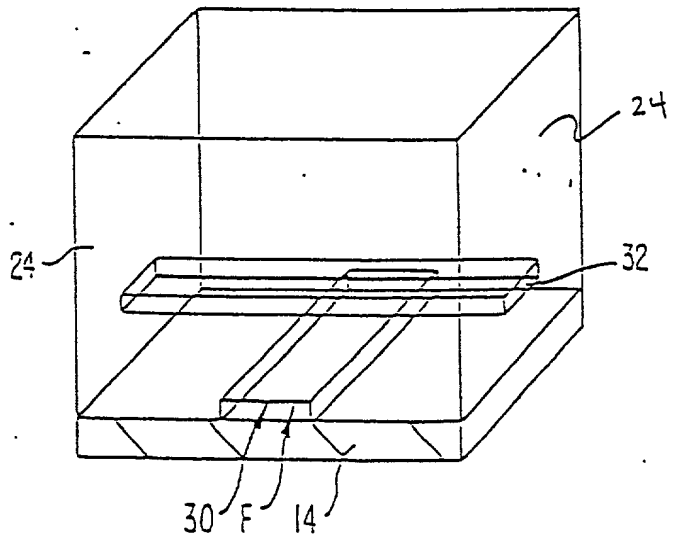


FIG. 20B



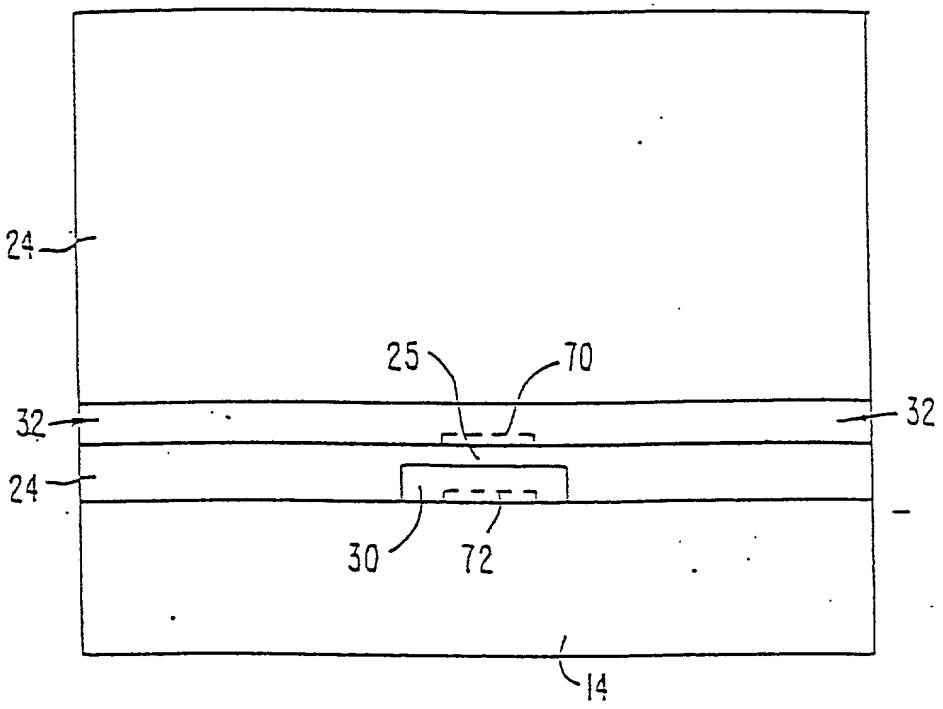


FIG. 21A

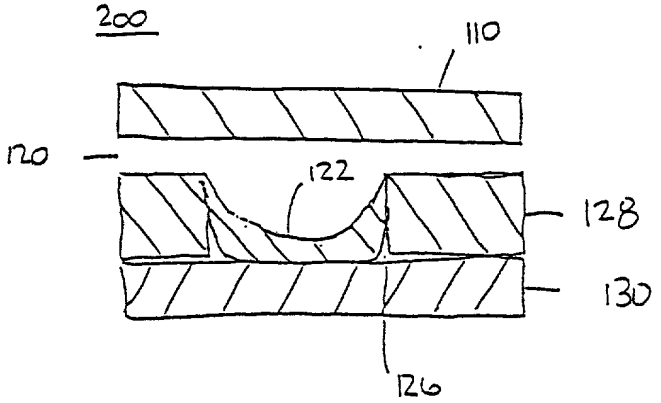


FIG. 21B

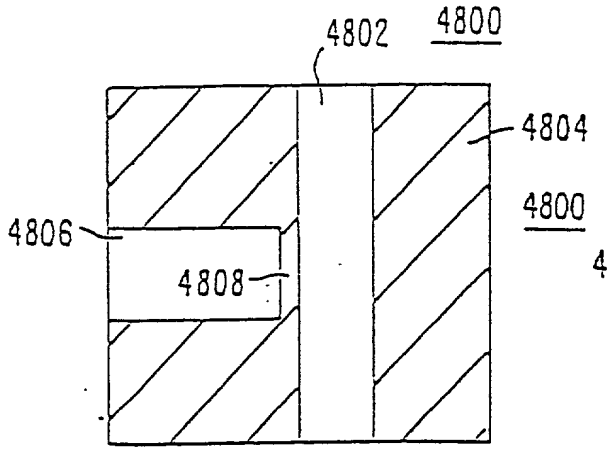


Fig 22A

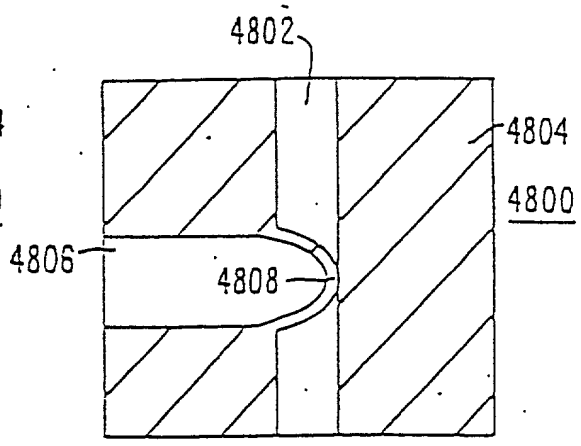


Fig 22B

Fig 23A

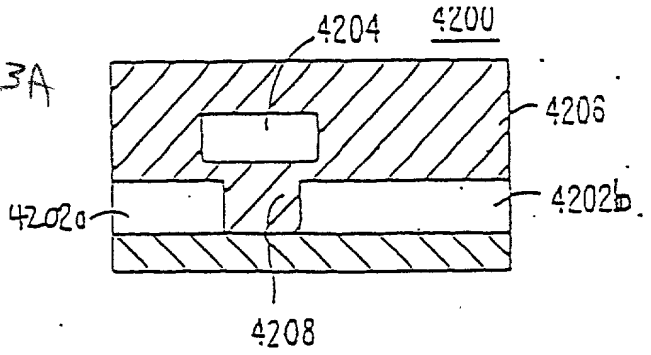
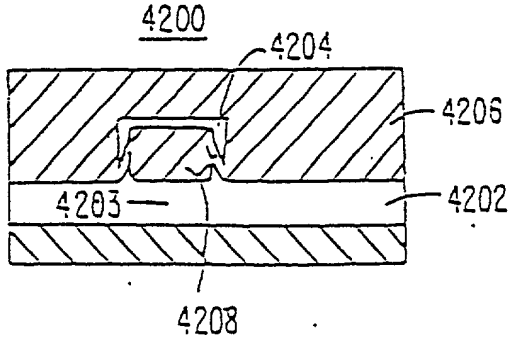


Fig 23B



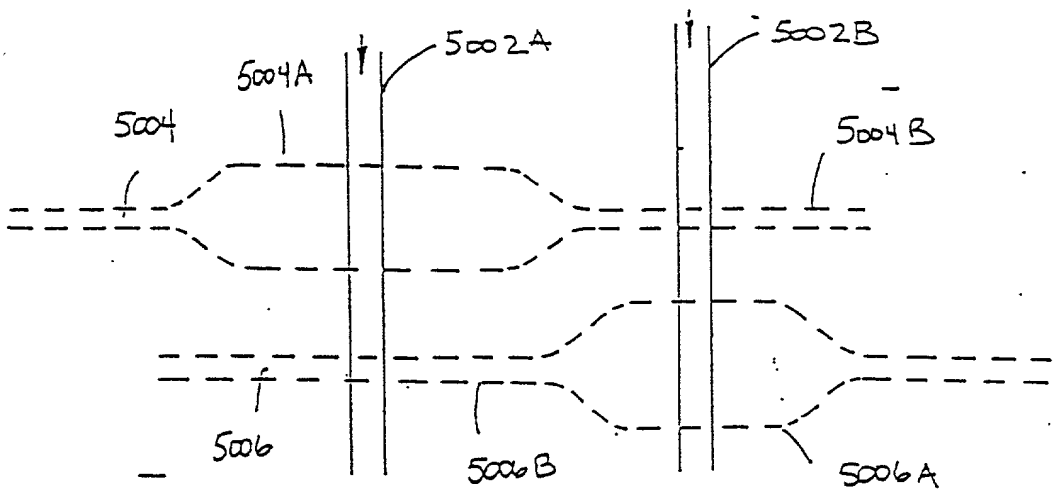


Fig 24

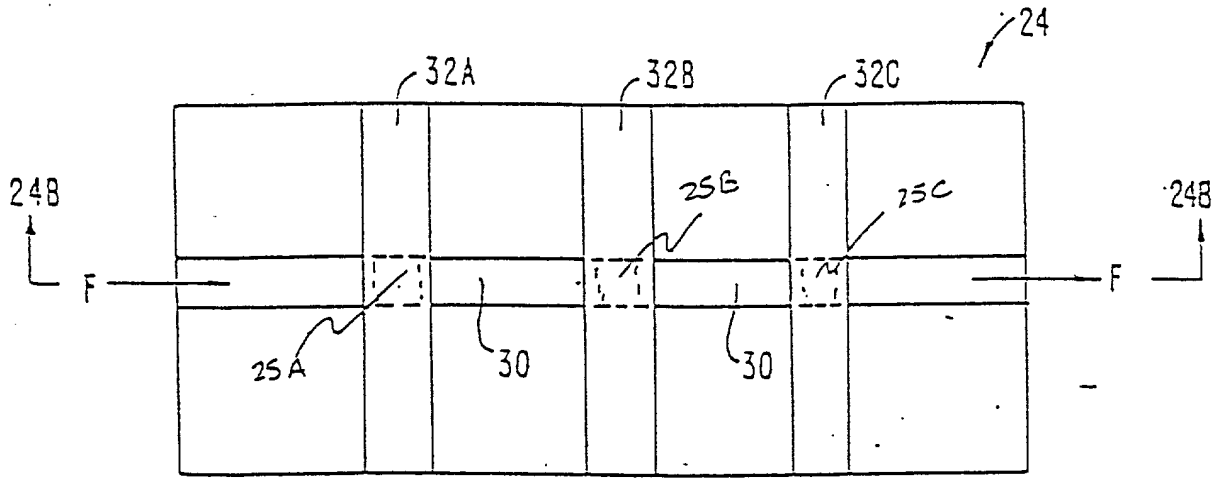


Fig 25A

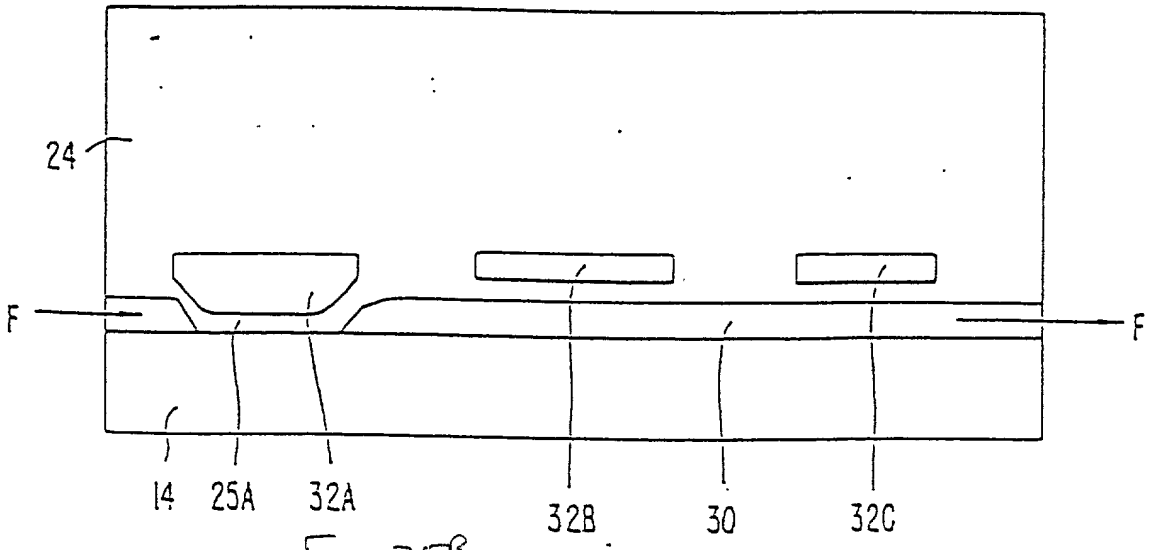


Fig 25B

Fig 26A

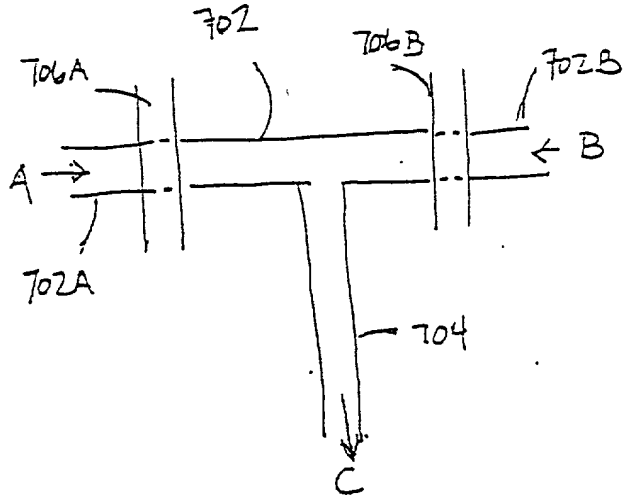


Fig 26B

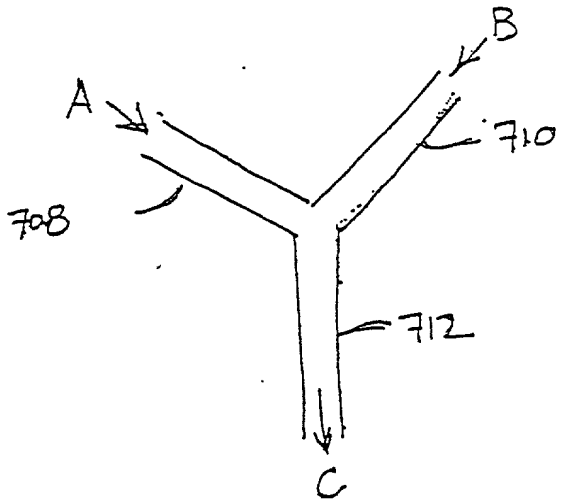


Fig 26C